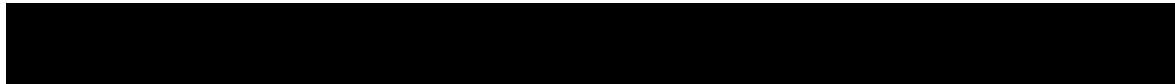


EXHIBIT 7



REBUTTAL EXPERT REPORT RE VALIDITY

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION

MOBILITY WORKX, LLC,

Plaintiff,

v.

CELLCO PARTNERSHIP D/B/A/
VERIZON WIRELESS, INC.,

Defendant.

JURY TRIAL DEMANDED

REBUTTAL EXPERT REPORT OF DR. SUKUMARAN NAIR REGARDING THE

VALIDITY OF U.S. PATENT NUMBERS 8,213,417 and 7,231,330

July 5, 2019

CONFIDENTIAL – REDACTED DRAFT – TO VIEW

REBUTTAL EXPERT REPORT RE VALIDITY

TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
TABLE OF FIGURES	iii
TABLES	v
I. INTRODUCTION	1
II. QUALIFICATIONS AND EXPERIENCE	2
III. PREVIOUS TESTIFYING EXPERIENCE	3
IV. COMPENSATION	4
V. MATERIALS CONSIDERED	4
VI. USE OF DEMONSTRATIVES.....	4
VII. SUMMARY OF INVALIDITY ARGUMENTS.....	5
I. INTRODUCTION TO CONCEPTS AND CLARIFICATIONS	25
A. Signal Strength and Coverage Areas.....	25
B. BSC, BTS in CDMA and CDMA 2000	26
A. PPP Links and Packet Data in CDMA	30
B. BTS and BSC, MSC Interconnection in CDMA	32
C. UMTS / 3G: Radio Network Controller (RNC) and NodeB (RNS)	34
D. Resource Allocation in Handovers UMTS/3G and LTE	42
II. Rebuttal on Invalidity Opinions Based on § 1112.....	46
III. Rebuttal to Secondary Considerations of NON-OBVIUSNESS	48
IV. Nexus between LTE and the '417 Patent.....	50
V. Gwon II Patent not disclosed in the Invalidity Contentions.	50
VI. Rebuttal to SUMMARY of ASSERTED PATENTS	51
A. The '417 Patent	51
B. The '330 Patent	53
VII. Rebuttal for '417 Patent and arguments with Liu's Patent, Liu's Paper and Gwon I.....	54
A. Claim 1 Liu's Patent, Liu's Paper and Gwon I	54
B. Claim 4 '417 Patent Liu's Patent, Liu's Paper and Gwon I.....	66
C. Claim 7 '417 Patent Liu's Patent, Liu's Paper and Gwon I.....	67
VIII. Rebuttal for the '417 Patent arguments with Shimizu 3G UMTS and RFC 2002.....	71
A. Claim 1 '417 Patent Shimizu 3G UMTS and RFC 2002	71
B. Claim 4 '417 Patent Shimizu 3G UMTS and RFC 2002	81
C. Claim 7 '417 Patent Shimizu 3G UMTS and RFC 2002	82

REBUTTAL EXPERT REPORT RE VALIDITY

IX.	Rebuttal to Under Plaintiff's Interpretation of the Asserted Claims, the 3G UMTS Standard Anticipates or Render Obvious the Asserted Claims and Patent 6,385,454.....	85
A.	Claim 1 '417 Patent 3G UMTS with Bahl	85
B.	Claim 4 '417 Patent 3G UMTS with Bahl	90
C.	Claim 7 of the '417 Patent is Patentable over 3G UMTS with Bahl	91
X.	Rebuttal for '417 Patent arguments from Gwon I and Gwon II	92
A.	Claim 1 '417 Patent against Gwon I and Gwon II	92
B.	Claim 4 '417 Patent against Gwon I & II.....	110
C.	Claim 7 '417 Patent against Gwon I and Gwon II	111
XI.	Rebuttal for '330 Patent on MOUNT and NIST & ONE	112
A.	Claim 1 '330 Patent Against MOUNT and NIST & ONE.....	112
B.	Claim 3 '330 Patent Against MOUNT and NIST & ONE.....	128
C.	Claim 4 '330 Patent Against MOUNT and NIST & ONE.....	128
XII.	Rebuttal arguments for '330 Patent AirAccess with NIST & ONE	129
A.	Claim 1 '330 Patent Air Access and NIST & ONE	129
B.	Claim 3 '330 Patent C2K AirAccess & NIST/ONE	135
C.	Claim 4 '330 Patent C2K AirAccess and NIST/ONE.....	135
XIII.	Rebuttal arguments for '330 Patent Rimoni with NIST & ONE	135
A.	Claim 1 '330 Patent Rimoni and NIST & ONE.....	135
B.	Claim 3 '330 Patent Rimoni and NIST & ONE.....	136
C.	Claim 4 '330 Patent Rimoni and NIST & ONE.....	136
XIV.	Rebuttal Cho Anticipates the Asserted Claims or Renders Them Obvious in View of NIST or ONE	137
A.	Claim 1 '330 Patent Cho and NIST & ONE	137
B.	Claim 3 '330 Patent Cho and NIST & ONE	138
C.	Claim 4 '330 Patent Cho and NIST & ONE	139
XV.	Rebuttal of Invalidity Opinions Based on § 112, ¶ 1	139
XVI.	Rebuttal to Secondary Considerations of NON-OBVIOUSNESS	141

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The propagation channel is influenced by the various obstructions surrounding antennas and the existing environmental **conditions**. Another important question for a personal receiver (or handheld) antenna is also the influence of the human body on the operating **characteristics** of the working antenna. The various blocks that comprise a propagation channel are shown in Figure 1.1.

Its main output **characteristics** depend on the **conditions** of radio wave propagation in the various operational environments where such **wireless** communication links are used. Next, we briefly describe the frequency spectrum, used in terrestrial, atmospheric, and ionospheric communications, and we classify some common parameters and **characteristics** of a radio signal, such as its path loss and fading for various situations, which occur in practice.

62. The statements made by Proctor regarding this issue are surprising and obviously wrong.
63. As the wireless communications conditions are measured with parameters such as Signal to Noise Ratio, Signal Strength, and Bit Error Rate (BER), which are indeed the wireless communications characteristics.

III. Rebuttal to Secondary Considerations of NON-OBVIUSNESS

64. Proctor mischaracterizes how UMTS works and operates. Proctor bases his entire argumentn on Paragraph 734 by his own assumption that 4G is nothing but the combination of UMTS elements, as we know Verizon nor any carrier in the world would have invested Billions of dollars for the same technology that was already deployed.

65. The UMTS and SRNS hard handover procedures use the MSC and circuit switched elements that are bound to be obsolete and an entire system that is about to be shut down by most carriers (For example Verizon will shut down CDMA network is in the process or retiring its network, that includes the MSC in the CDMA network)¹⁷

66. Verizon no longer activates CDMA devices and citing its website:

¹⁷ <https://www.verizonwireless.com/support/knowledge-base-218813/>

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◊ Verizon Wireless is retiring its CDMA (3G) network. As a result, we are no longer allowing activation of CDMA-only devices, including CDMA-only basic phones and smartphones, or 4G LTE smartphones that do not support HD Voice service.

Current users of CDMA-only devices or 4G LTE voice-capable devices that do not support HD Voice service can continue to use their current devices until we retire our CDMA network, or can change devices as follows:

Users of CDMA-only devices can only change to other CDMA-only devices or to 4G LTE devices that support HD Voice.

Users of 4G LTE smartphones that do not support HD Voice can only change to other 4G LTE smartphones that do not support HD Voice or 4G LTE HD Voice devices.

67. As explained in this report, MSC, BSC, BTS, RNC, NodeB are components of the 1X CDMA network and UMTS (3G) CDMA Network. Therefore, Verizon requires a handover protocol to support an IP-based network like 4G and also its future 5G deployments.

68. Mr. Proctor admits that LTE is a packet-switched ONLY system and hence it is superior to UMTS a voice over the circuit-switched network (Paragraph 736).

LTE is a packet-switched only system using the internet protocol on certain interfaces, while UMTS supported voice over the circuit-switched. The alleged invention did not propose this change in system architecture; and ...

69. Proctor misses to identify that LTE is:

- An All-IP network that enables Network Function Virtualization, which means that Cloud-based platforms can now control 4G and 5G systems,
- That an IP-based system is more efficient to manage and operate, including Self-Organizing networks,

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- All IP tunnels are widely used in LTE as all eNodeBs are a terminating IP tunnel, whereas in UMTS an RNC is the terminating IP tunnel and 100's or 1000's of NodeBs share the same tunnel,
- Testing and certification of all mobile phones required of a packet-swched emulator

70. Proctor misses important points and makes wrong assumptions including the most important that an RNC and NodeB is a combinable set, and by the RNC supporting IP leads to the series of NodeBs connected to an RNC to be IP-based as in LTE, assumption that is wrong and incorrect.

IV. Nexus between LTE and the '417 Patent

71. The nexus between the '417 Patent and LTE is in the use and allocation of IP-based resources pro-actively as IP-tunnels move from eNodeB to eNodeB as Mobile Phones move from eNode to eNodeB, which is not required by UMTS. Hence, as hand handovers are a must, the need to predict and select the right eNodeB to handover before making the decision is highly important.

72. CDMA 1X, CDMA 1xEvDO, CDMA (3G) are being shut down by Verizon, hence LTE can only rely on the '417 patent for handoff in 4G and potentially in 5G.

V. Gwon II Patent not disclosed in the Invalidity Contentions.

73. The Gwon II patent was not disclosed nor in 1st Invalidity Contentions nor in the amended version presented by Verizon. However, a section presenting Gwon I and Gwon II is presented in this report.

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Date: July 5th, 2019

By: 
Dr. Sukumaran Nair